

**R E M A R K S**

**Status of the Claims**

Claims 1-9 are pending in this application. No claims have been canceled. Claims 4-9 have been added. Claims 1 and 2 have been amended to change the diameter range from "9.5 to 12 mm" to "10 to 12 mm". Support for this amendment is found at page 11, line 3 and page 14, line 15. Claim 1 has also been amended to incorporate the subject matter of original claim 2. Claim 2 has been rewritten as original claim 1 incorporating part of the subject matter of claims 2 and 3. No new matter has been added by the above claim amendments and new claims.

**Objections to Specification**

The Examiner objects to the specification for improper spacing. Applicants previously submitted a Substitute Specification on August 25, 2004, which removed the improper spacing. As such, this objection should be withdrawn.

**Rejection under 35 U.S.C. 112, second paragraph**

The Examiner rejects claims 2 and 3 as indefinite for allegedly insufficient "antecedent basis" for the phrase "said region" in line 2 of claim 2. Applicants traverse the rejection and respectfully request the withdrawal thereof.

Applicants amend the claim to overcome any improper antecedent basis issues. Applicants also amend claims 1 and 2 to improve form and grammar. As such, these rejections should be withdrawn.

Rejection under 35 U.S.C. 102(b)

The Examiner rejects claim 1 as being anticipated by Kusumoto '648 (USP 6,056,648). Applicants traverse the rejection and respectfully request the withdrawal thereof.

Applicants submit that Kusumoto '648 discloses a golf club shaft having varying diameters at portions A-E as shown in Fig. 9 and described at column 10, lines 35-62. The front end portion A may have a diameter of 7-9.5 mm, which gradually increases towards the rear end portion C having a diameter of 10-12.5 mm. In the embodiment described for Fig. 9 at the bottom of column 10, A is 8.4 mm and C is 11.4 mm. Fig. 4 shows the "bending" rigidity which appears to be at about  $2.5 \text{ kg}\cdot\text{m}^2$  at a portion of just under about 300 mm which is about 25% from the tip of the golf club shaft taking into account the fact that the shaft is 1120 mm long as noted at the bottom of column 10.

On the other hand, the present invention is directed to a golf club shaft, comprising fiber reinforced resin layers, wherein the golf club shaft has an outer diameter of 10 to 12 mm in at least one portion of a range from a tip thereof disposed at a head-mounting side to a position located at 25% of a distance from said tip to a

butt thereof; a minimum value of a flexural rigidity (EI) is in a range of 1.00 to 2.50 kg·m<sup>2</sup>; and a reinforcing layer is disposed from said tip to said position located at 25% of said distance from said tip to said butt, and said reinforcing layer includes a straight layer consisting of a prepreg having reinforcing fiber with a tensile modulus of elasticity of 5 to 15 ton/mm<sup>2</sup> which is substantially parallel with an axis of said shaft; and an angular layer consisting of a prepreg having reinforcing fiber with a tensile modulus of elasticity of 24 to 40 ton/mm<sup>2</sup> and an orientation angle of  $\pm 20$  to 65° with respect to said axis of said shaft.

Applicants submit that Kusumoto '648 fails to disclose a diameter range of from 10 to 12 mm as in the present invention. As such, Applicants submit that Kusumoto '648 fails to disclose all of the claim elements of the present invention. Therefore, this rejection should be withdrawn.

**Rejection under 35 U.S.C. 103(a)**

The Examiner rejects claims 1-3 as being obvious over Takemura '830 (USP 6,273,830) in view of Yamamoto '056 (USP 6,110,056). Applicants traverse the rejection and respectfully request the withdrawal thereof.

As stated above, Kusumoto '648 discloses a golf club shaft having varying diameters. However, Kusumoto '648 fails to disclose

a diameter of 10 to 12 mm as in the present invention. This deficiency is not compensated for in the secondary references.

Takemura '830 discloses a tapered hollow golf club shaft which includes various examples shown in Table 4 at columns 23-24, including Example 6. Example 6 is a shaft having a tip end with a diameter of 9.50 mm and a flexural rigidity of  $2.48 \times 10^7 \text{ N}\cdot\text{mm}^2$ .

Yamamoto '056 discloses golf club shafts wherein the flexural rigidity (EI) appears to be about in the range of  $2.5 \text{ kg}\cdot\text{m}^2$  in the range of about 25% from the tip of the shaft as shown in Fig. 4. The examples described in Yamamoto '056 include shafts having an outer diameter at the tip end of 8.5 mm as noted at column 12, lines 19-67.

In each of the above references, the diameter is critical to the claimed inventions. In each instance, the other aspects of the golf club shafts are dependent on the diameter as the diameters are described in proportionate ratios. There would be no motivation for one of ordinary skill in the art to modify the closest diameter of 9.5mm to 10 mm for one end of the range to meet this limitation of the present invention and to also change the other end of the range to 12 mm without having first observed the present invention. This type of so-called motivation would constitute improper hindsight motivation. Improper hindsight motivation is not sufficient for establishing a prima facie case of obviousness. As such, Applicants submit that the combination of references fails to

disclose or suggest each and every limitation of the present invention and the obviousness rejection should be withdrawn.

**Conclusion**

As Applicants have addressed and overcome all rejections in the Office Action, Applicants respectfully request that the rejections be withdrawn and that the claims be allowed.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Kecia Reynolds (Reg. No. 47,021) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.


Pursuant to 37 C.F.R. §§ 1.17 and 1.136(a), Applicant(s) respectfully petition(s) for a one (1) month extension of time for filing a reply in connection with the present application, and the required fee of \$110.00 is attached hereto.

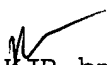
If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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